BAI | BAY AREA INNOVATIONS

Electrical Engineering Intern

Location: 4951 E. Adamo Dr. Suite 240, Tampa, FL 33605
Employment Duration: Part Time
Shift: M-F, Scheduled Availability
Hourly Rate: $15.00

Overview:

Bay Area Innovations specializes in concept, design, prototyping, production, and logistics phases of product development. We design and develop products across a vast array of industries with each project independently and intellectually unique. Today, with many products and projects requiring electrical hardware components and integrated software applications, we are looking for a driven and talented student in Electrical/Computer Engineering to be a part of the rapidly growing Bay Area Innovations team.

The Electrical Engineering Intern is a part-time internship position that performs a range of duties pertaining to the process of product development, prototyping, and production, with a primary focus on electrically engineered parts, systems, and processes. The Electrical Engineering Intern will report directly to the Owner and Project Manager and work closely with other inter-office departments. This is an excellent opportunity to be involved and gain valuable experience in the development of innovative new products across many different industries, utilizing various methods of prototyping and manufacturing.

Essential Duties & Responsibilities:

- Researches and analyzes data such as design proposals, specifications, and documentation.
- Maintain design specifications, schematics, and test requirements for PCB verification.
- Communicate with component suppliers, manufacturers, and distributors for part selection and troubleshooting.
- Perform testing, validation, verification, and troubleshooting on circuit board prototypes using test measurement devices such as multi-meters, and oscilloscopes.
- Design test fixtures for programming verification in the production environment.
- Analyze/Document prototype builds and make design changes as needed.
- Manage electrical assembly BOM using PCB CAD software and MS Excel.
- Develop and evaluate Micro-controller firmware.
- Create various documentation – Use Case Scenario, Functional Specifications, System Schematics, and others as needed.
- Maintaining work areas in a safe, neat, and efficient fashion.

Additional Duties & Responsibilities:

- Supports manufacturing with design changes and supporting documentation.
- Client relationship management.

- Report on tasks and projects utilizing MS Planner project management tool.
- Document hours and allocate to appropriate customer/project using QuickBooks time tracking tool.
- Perform other assigned tasks as directed by management.
- Adhere to all company policies, procedures, and business ethics codes.

Required Skills:

- Basic ECAD application knowledge (Altium, KiCad, Eagle, Cadence, etc.)
- Basic programming knowledge (C Programming, Python, etc.)
- Soldering (and preferably micro-soldering)
- Electrical cabling / wiring and breadboarding.
- Understanding of serial communication protocols (SPI, UART, I2C)
- Understanding of debug tools and programming hardware/software
- Experience with microcontroller platforms (ESP32, STM32, PIC32, Atmega)
- Ability to take direction and comprehend design feedback and intent.
- High-level of organizational, analytical, problem-solving, and critical thinking skills.
- Great attention to detail.
- Ability to multi-task.
- Computer skills - Microsoft Office 365.
- Self-motivation.
- Exemplary written, oral, and presentation skills.

Preferred Skills:

- Basic knowledge and understanding of manufacturing techniques.
- Understanding of tolerances as it relates to assemblies and manufacturing techniques.
- Use of power and hand tools.
- Basic knowledge of 3D printing.

Educational/Certification/License Requirements:

- Currently enrolled in an accredited college or university in pursuit of an Electrical or Computer Engineering degree.

BAI, Inc. is an equal employment opportunity employer.

PLEASE NOTE: Management reserves the right to change or otherwise modify the functions of this job in order to meet the needs of the company. Additional duties may also be assigned. Consideration will be given to make reasonable accommodations for individuals with disabilities.

Acknowledgement

I have received, reviewed and fully understand the above job description. I further understand that I am responsible and capable of fulfilling the satisfactory execution of the essential duties and physical demands described therein, under any and all conditions as described.

Intern Name: _____

Intern Signature: _____ Date: _____

Manager Signature: _____ Date: _____